



**PATIENT**

Lupita Rivera

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Female Spay

**AGE**

14 Years

**WEIGHT**

8.7 lbs

**INTERPRETED BY**

Sebastian Jawinski,  
German Board Certified  
Vet Specialist in  
Diagnostic Imaging

**IMAGING PERFORMED BY**

Dr. G. Ferrer, DVM

**HOSPITAL NAME**

Pulse: Pet Ultrasound  
Services

**REFERRING VET**

Dra. Alma Alicea

**INVOICE**

48835

**DATE**

12-6-21

**PRESENTING CLINICAL SIGNS**

12/3/21 Lupita presented for an abdominal ultrasound for evaluation as all live enzymes are elevated also a very high elevation of Bilirubin. Lupita was referred to AEC by Dr. Cidre (Centro Veterinario del Norte) for further treatment during the weekend and abdominal sonogram. Lupita was seen originally by RDVM due to vomits of 3 days. RDVM referred to Centro Médico del Norte. Ddx of biliary obstruction/ mucocele and/or cholangiohepatitis. vaccines UTD. current preventives. indoor strictly. PE: CV- unremarkable, Resp- normal BV sounds but she is panting, LN- WNL, MM/CRT- PK/,2sec, Abd palp- moderate discomfort upon cranial abdominal palpation. Plan: 1. hospitalization until Monday 2. fluids @ 8ml/hr 3. Metronidazole 8cc IV BID 4. Famotidine 0.4cc IV BID 5. Unasyn 2cc IV BID 6. Baytril LA 0.3cc IV SID 7. Cerenia 0.4cc IV SID 8. Fentanyl patch (RDVM) 9. Denamarin 90mg PO SID 10. Abdominal sonogram with radiographs ( FNA and cytology were estimated in case needed) 11. Forced feedings 1/8 can PO QID of low fat diet (If anorexia persist or forced feedings become complicated, consider NE tube) mf  
Abnormal PE/Chem/CBC/UA Results: ALP: >2,000 ALT: 2238 ( 23-125) Bilirubin 12.2 (0-0.9) GGT 63 (0-11) Lipase 5,534 (200-1800)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary system**

The urinary bladder, trigone and pelvic urethra present normal findings without evidence of uroliths or sediment. Wall layering is intact on all views without focal or diffuse thickening. Ureters are not visualized and considered to be normal. No evidence of an inflammatory or neoplastic process is noted.

Both kidneys show an age-appropriate fuzzy corticomedullary transition. Renal pelvises and exits to the ureters are unremarkable.

**Adrenal glands**

The left adrenal gland measures 0.84 cm in its caudal pole, the right adrenal gland 0.43 cm in the caudal pole. The left one appears asymmetric and enlarged with loss of the corticomedullary detail.

**Spleen**

The spleen is inconspicuous in terms of size, surface and echotexture. There are mild perivascular, hyperechoic infiltrates noted in the hilar region. There are no overt signs of nodular/focal changes.

**Liver/Gallbladder**

Liver images are inconspicuous. Echotexture, size and vasculature appear regular. Evidence of nodular or focal changes is not visible.

The gallbladder shows a significant kiwi fruit-like pattern with hypoechoic striations and central hyperechoic sludge. The periphery presents highly hyperechoic changes with a distended common bile duct and small pockets of free peritoneal effusion which can be traced up to duodenum. The portal and hepatic lymph nodes are mildly enlarged again showing a hyperechoic periphery.

**Gastrointestinal**

The gastric wall appears prominent with transverse diameters of 0.41 cm. The stomach, small intestine and colon present intact wall layers. Adjacent mesentery and fat tissue are of normal appearance. Mesenteric lymph nodes are mildly enlarged but inconspicuous in shape and periphery.

**Pancreas**



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All pancreatic parts displayed show isoechoic echogenicity to the surrounding omental fat. Signs of inflammatory changes or focal lesions are missing.

**SPECIES**

Canine

**Primary**

- Gallbladder mucocele with signs of an active and severe inflammation/peripheral peritonitis/cholangitis
- Subtle amount of free peritoneal fluid
- Signs of a gastritis
- Portal/hepatic lymphadenopathy

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**Secondary**

- Asymmetric and enlarged left adrenal gland with loss of the corticomedullary detail
- Signs of a mild and chronic, age-appropriate nephropathy
- Age-appropriate splenic infarcts/benign hemangioma

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ultrasonographic findings of the gallbladder most likely reflect the patient's history and speak for a mucocele of the gallbladder. Rupture is highly suspected since there are an irregular inner outline of the gallbladder wall and signs of a peripheral peritonitis detected. These signs generally indicate surgery (coagulation panel?). Cholestasis, secondary cholangitis/-cystitis, pancreatitis and gastritis/duodenitis are common concomitant findings.

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If clinical symptoms, blood results and sonographic findings do not improve/are progressive with initial therapy laparotomy (surgical cholecystectomy, liver biopsy) are highly recommended.

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Liver and pancreas are inconspicuous from a sonographic perspective. This does not rule out active and secondary hepatitis/pancreatitis.

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Asymmetry and enlargement of the left adrenal gland could represent hyperplasia due to hyperadrenocorticism. Abnormal adrenal function may trigger altering gallbladder mucus secretion. Additional ACTH stimulation could be performed.

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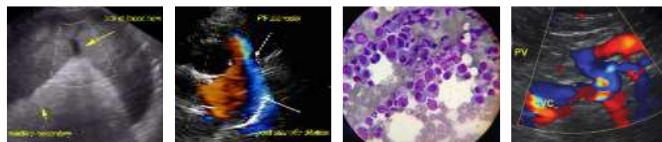
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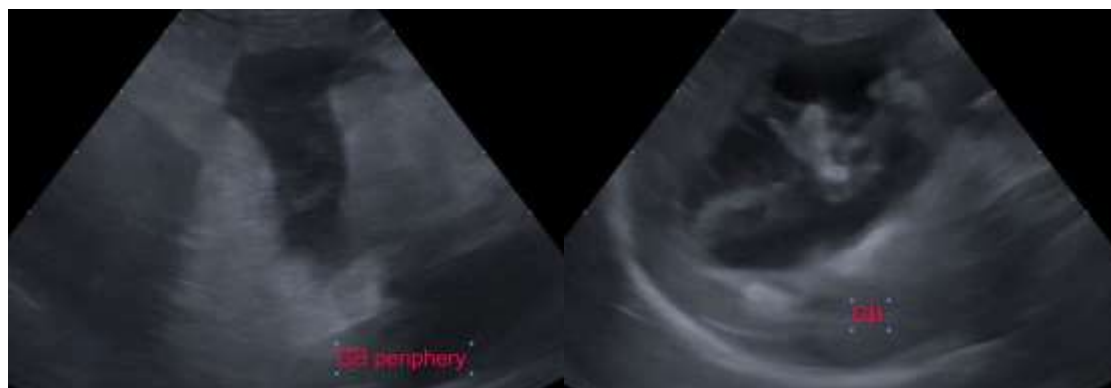
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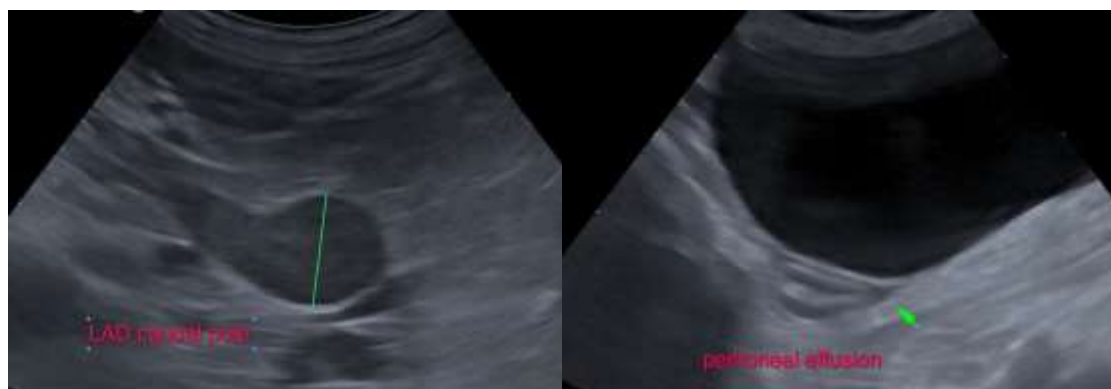
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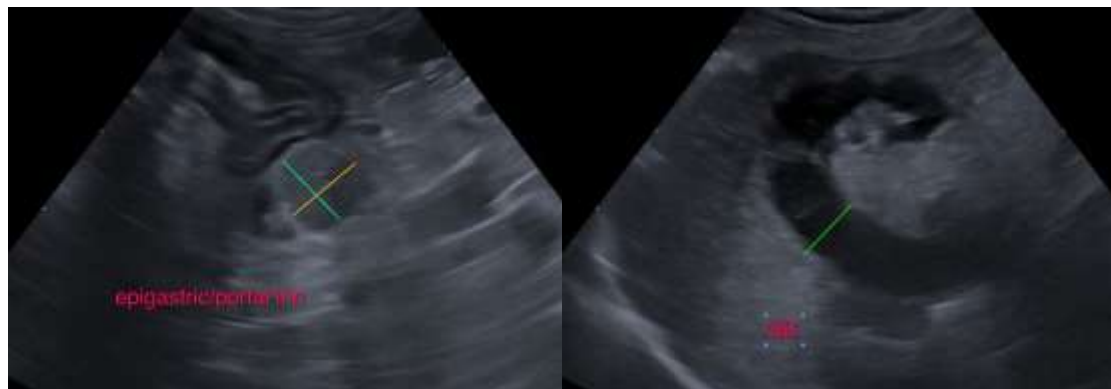
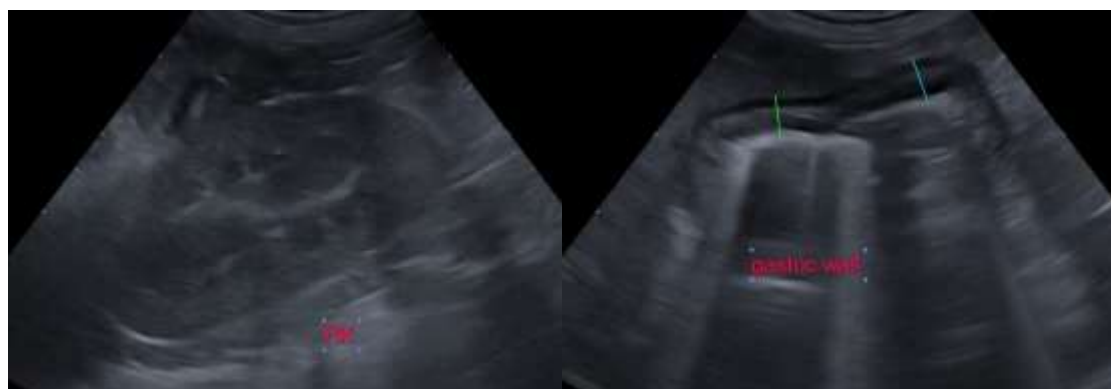
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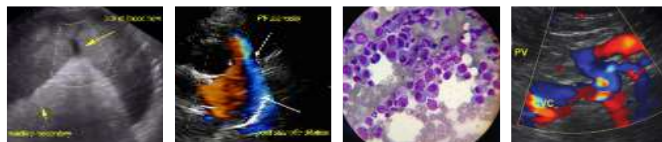
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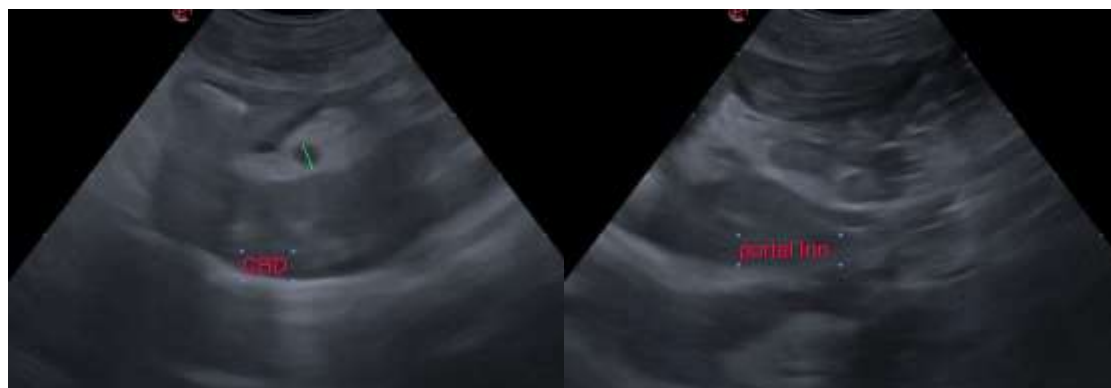
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

**Sebastian Jawinski**, German Board Certified Vet Specialist in Diagnostic Imaging  
info@sonopath.com